

ABSTRACT OF THE DISCLOSURE

A transistor and a method for fabricating the same that involves a forming a device isolation oxide film
5 semiconductor substrate, forming an opening in the device isolation oxide to open the substrate and define an active region, the junction between the oxide and the substrate having a rounded profile, and then forming a complex gate electrode structure in the active region. The preferred
10 gate electrode structure comprises a gate oxide and a stacked conductor structure having a first and a second conductor, an optional hard mask layer formed on the second conductor, an oxide layer formed on the first conductor, and nitride spacers formed on the oxide layer on the sidewalls
15 of the gate electrode. On either side of the gate electrode structure lightly doped drain (LDD) regions and source drain regions are then formed in the active region of the semiconductor substrate. The wafer is then planarized with one or more insulating films to condition the wafer for
20 subsequent processing.